

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APP. NO. 09/897,732

REMARKS

Claims 1-10 are all the claims pending in the application.

The Examiner has objected to claim 3, and alleges an informality in this claim. Applicant submits that amended claim 3 has no informalities.

Claim 6 is rejected under 35 U.S.C. § 112, second paragraph. Specifically, the Examiner alleges that in claim 6, “a frame length indicating parameter” and a “frame length parameter” have the same purpose, i.e., indicating the possible frame length. Applicant respectfully disagrees and directs the Examiner’s attention to the paragraph bridging pages 9 and 10 as amended in the Amendment filed August 29, 2005, and to Fig. 5B, which clearly show the differences between the “frame length indicating parameter” and the “frame length parameter.” The Examiner indicates that claims 6-9 would be allowable if the rejection of claim 6 under 35 U.S.C. § 112, second paragraph, were overcome. Applicant submits that claim 6 complies with the requirements of 35 U.S.C. § 112, second paragraph.

Claims 1, 4 and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by Nara (EP 0817440).

Claims 2, 3 and 5 are rejected under 35 U.S.C. § 103 as being unpatentable over Nara in view of the admitted prior art.

Applicant’s comments with respect to these rejections are set forth below.

Claim Rejections Under 35 U.S.C. § 102

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Claims 1, 4 and 10 are rejected under 35 U.S.C. § 102 as being anticipated by Nara. Claims 1 and 4 recite that the frame length is detected from the input data which has not been decoded by the preliminary decoding part. Applicant submits that 1 and 4 are distinguishable over Nara at least because of this feature. In the Office Action of May 27, 2005, the Examiner states that the second transmission rate judgment means 108 receives the signals 109-112 from element 101, and that the signals 109-112 are not processed by the viterbi decoder 102. From this, the Examiner concludes that Nara teaches a frame length detected from the input data, i.e., the signal output from the element 101, which have not been decoded by the preliminary decoding part.

Applicant submits that although the bit signals 109-112 might sometimes be used as a factor in determining frame length, the use of the signals does not correspond to the claimed “frame length detected from the input data which has not been decoded by the preliminary decoding part.” Nara discloses a first transmission rate judgment means 104 which includes a threshold value judgment means 103. The threshold judgment means 103 receives path metric signals 113-116 from the viterbi decoding means 102 and performs an initial determination of the reliability of the decoding result at each respective transmission rate. The transmission rate determination means 105 makes the determination of the transmission rate for each received frame of data. If the transmission rate determination judgment means 105 identifies more than one candidate transmission rate based upon the information received from the first transmission rate judgment means 104, then a second transmission rate judgment means 108 provides further information for determining a transmission rate.

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The second transmission rate judgment means 108 includes a convolutional encoding means 106 and a bit comparison means 107. The convolutional encoding means 106 converts the output of the viterbi decoder 102 back into convolutionally encoded bit sequences 129-132 which are compared with the combined bit signals 109-112. That is, the bit comparison means 107 compares the bit rows of the combined bit signals 109-112 with the bit rows of the viterbi encoded signals 129-132 for each of the respective transmission rates to obtain counts of the number of non-matching bits for each transmission rate. The bit comparison means 107 outputs these counts to the rate determination means 105. The second transmission rate judgment 108 performs the above-described operations only for the candidate transmission rates designated on signal line 137 by the transmission rate determination means 105. If the second transmission rate judgment means 108 receives no signal 137 designating a candidate transmission rate, the second transmission rate judgment means 108 does not operate.

It is noted that Nara always uses the output of decoder 102 to judge a transmission rate. Therefore, a frame length is never detected from the input data which has not been decoded by the preliminary decoding part, even if the output of element 101 is sometimes used as a factor in determining frame length.

In view of the above description of Nara's rate judgment operation rate, Applicant submits that Nara does not teach detecting a frame length from the input data which has not been decoded by the preliminary decoding part. While the bit signals 109-112 might sometimes be used as a factor in making a transmission rate judgment, the frame length is not detected from the input data which has not been decoded by the preliminary decoding part.

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Claims 2-3 are patentable at least by virtue of their dependency from claim 1, since the admitted prior art does not make up for the deficiencies of Nara that were described above, and the combination of Nara and the admitted prior art do not render obvious the invention defined by claims 2-3.

Regarding claim 4, reasoning similar to claim 1 applies also to claim 4. And claim 5 is patentable at least by virtue of its dependence from claim 4.

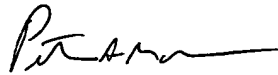
Claims 1-9 are believed to be patentable for at least the reasons presented above. Claim 10 is believed to be patentable at least by virtue of its dependence from claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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